

Background Information

Robotic Fabrication Laboratory

Zurich, 22 March 2018

The Robotic Fabrication Laboratory is the world's first research platform for large-scale robotic fabrication in architecture. The laboratory was initiated and planned by ETH professors Fabio Gramazio and Matthias Kohler in collaboration with industry partners



Inhalt.

Initiation and planning:

Chair of Architecture and Digital Fabrication

Users:

Researchers at the Institute for Technology in Architecture, ETH Zurich, and NCCR Digital Fabrication

Background Information

Equipment: Ceiling-mounted gantry system with four cooperating robots

RFL in brief

The Robotic Fabrication Laboratory (RFL) is the world's first research platform for large-scale robotic fabrication in architecture. The RFL is a ceiling-mounted gantry system that spans the entire laboratory hall and is able to work across a total volume of 45 x 17 x 6 metres using four cooperating industrial robots. This allows it to carry out experiments in the field of robotic fabrication in architecture on a scale previously unknown and also opens up new fields of research. The RFL is an integral component of the new Arch_Tec_Lab at the Institute for Technology in Architecture (ITA).

Timeline:

Feasibility study:	2010
Executive board decision:	2011
Contract awards:	2012/2014
Start of installation:	2015
Building completion:	September 2016
Entry into service:	September 2016

Financing:

Design and construction:

Participating professors:

Philippe Block, Professor of Architecture and Structure
Benjamin Dillenburger, Assistant Professor of Digital Building Technologies
Fabrizio Gramazio, Professor of Architecture and Digital Fabrication
Matthias Kohler, Professor of Architecture and Digital Fabrication
Arno Schlüter, Professor of Architecture and Building Systems
Joseph Schwartz, Professor of Structural Design

Participating industry partners:

ABB Schweiz AG
Güdel Schweiz AG
Bachmann Engineering AG

www.ita.arch.ethz.ch/archteclab.html →

www.dfab.ch →